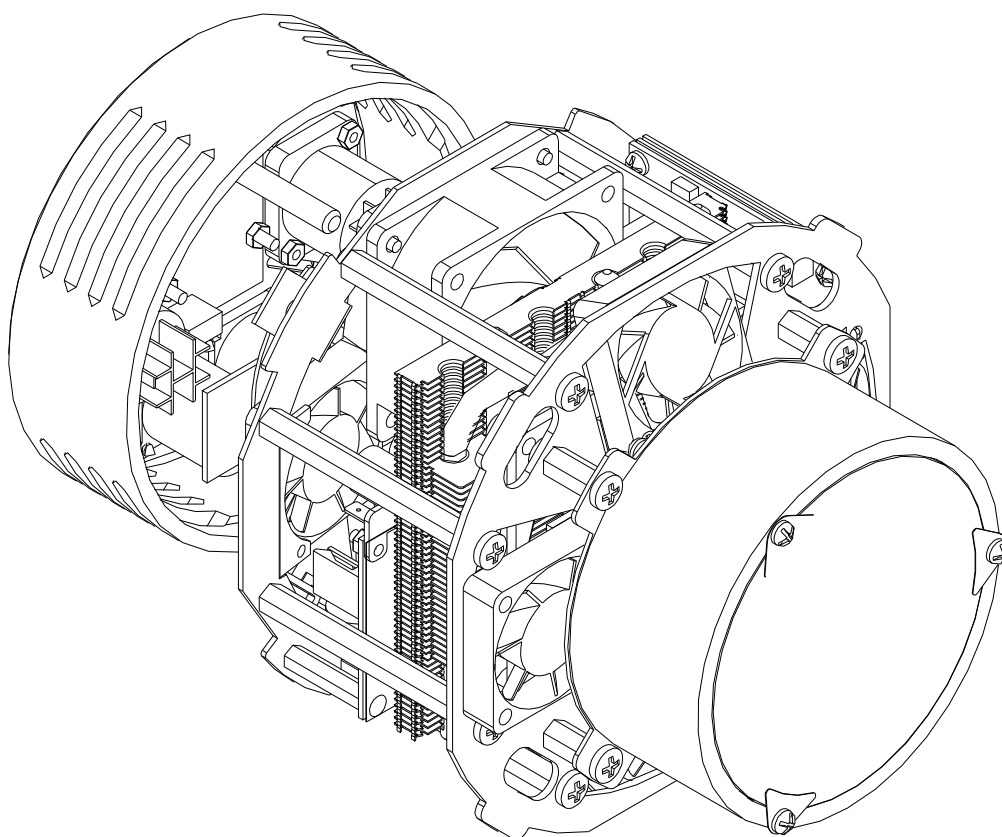


HPLED

Owner's and service manual



Read this manual totally and carefully follow all the instructions contained. File this manual for future use. It is essential to read all the information contained to ensure installation, service and full operation of the HPLed.

All operations must be accomplished, handled and carried out by qualified personnel only.

NOT COMPLYING WITH GIVEN NOTICE WILL VOID WARRANTY AND WILL FREE THE MANUFACTURER OF ANY SORT OF RESPONSABILITY AND LIABILITY.

Unpacking

Unpack the carton and gently remove HPLed from the box. Ensure HPLed it's integer from origin in all its components. In the event the HPLed shows any damage, do not use it and contact immediately your transporter as well your seller.

Items in the carton consist of:

- HPLED Module
- Rear metal cover with input connections
- Blue Neutrik PowerCon connector
- This owner's manual

Safety information

- HPLed must be installed on original " **ETC source 4**" fixture only. Any other use will void warranty and will free the manufacturer of any sort of responsibility and liability.
- Minimum distance from any flammable source is of 0.5m.
- Minimum throw distance from illuminated surface: 0.5m.
- Power HPLed to safety circuit breaker.
- Maximum ambient temperature: 35°C

Warning from electric shocks

All operations must be accomplished, handled and carried out by qualified personnel only.

- Disconnect power before servicing.
- Do not handle HPLed with humid hands or near to any water or any kind of moisture sources.
- IP20 protection rating.
- HPLed is rated Class I.
- Earth connection is mandatory.

CE Approvals

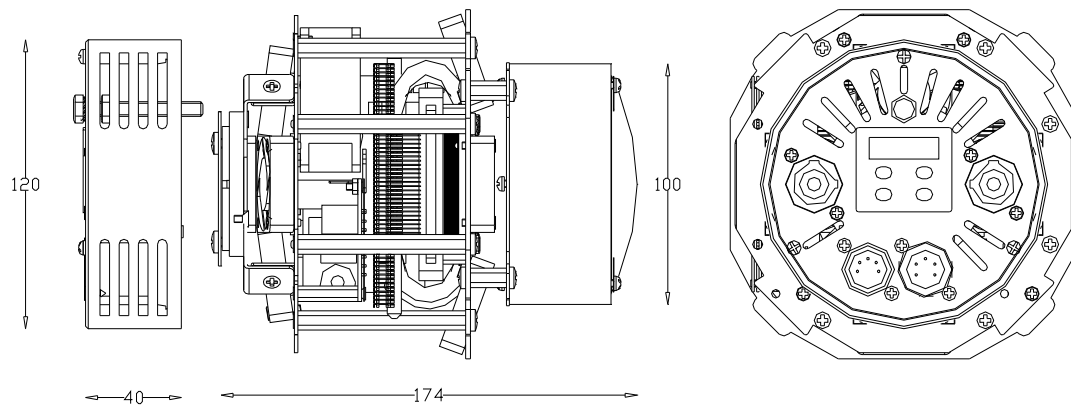
HPLed meets EMC 89/336/CEE, 92/31/CEE, BT72/23/CEE, 98/68/CEE requirements.

HPLed complies with EN50419 (Rohs) and 2002/96/EC (WEEE) norms.

Technical specifications

Power Supply	100-240 V~ 50/60Hz
Maximum power consumption	170W
cos Ø	0,98
Stand-by power consumption	5W
Minimum ambient temperature	-10°C
Maximum ambient temperature	35°C
LED Colour Temperature availability	2700°k,3000°K, 4000°K,5000°K (to specify when ordering)
LED CRI	Minimum 80 based on 2700°k, 3000°K, 4000°K models; Minimum 65 based on 5000°K
LED Life (Manufacturer specification)	50.000 hours
Weight	2,03 Kg
IP Rating	IP20
Working position	Any
Power connectors	IN & OUT Neutrik PowerCon
Data connectors	IN & OUT XRL5
Data protocols	DMX 512; RDM
User interface	4-digit display and 4 buttons
CE compliant	

Dimensions (see picture)



HPLED installation

HPLED has been designed to be installed in any "ETC source 4" fixtures to give the equivalent of traditional HPL575/750 source. It is essential to remove some parts of existing "ETC source 4" fixture.

1. **Disconnect any kind of power source that could cause electric shock**
2. Loosen knobs that hold lens assembly, remove it and place it aside in a safe place
3. Locate rear section of the Source 4 fixture, then start loosening knob that hold the round plate in place until it is totally separated from the main body. You may either store or scrap this part
4. **As of now onwards for your own safety we recommend you must wear protection gloves and safety transparent goggles.**
5. Locate the Source 4 inner reflector and start removing it from its housing as shown in the Source 4 Assembly guide.
6. Place HPLed on working bench and start loosening the 3 M4 screws that hold the metal ring (marked by red arrow in figure 2).
7. Insert HPLed in the Source 4 body ensuring the correct inward direction is followed as marked by the 2 red round ring references and by the red arrow as shown in figure 3. During such operation make sure that the 3 connecting cables (i.e. power cable, dmx cable and display cable) are led through loop-holes of the case ensuring that they will not be squeezed during reassembling.
8. Remount the metal ring to its former position by tightening, the 3 provided M4x6 screws to their full extent. Do not exceed nor force tightening.
9. Connect the 3 lead cables to the rear metal cover provided, ensure that connectors are inserted in the correct side. Special attention must be given to the **flat cable** as it must be handled with extreme care while connecting its end.
10. Ensure that all cable connections are neatly and clearly cut set to there position avoiding any contact, interference, interconnections, interpositions with fans and other interfering components that might collide, squeeze hamper the correct operations.
11. Remount the rear metal cover to the Source 4 body using any 10mm spanner by tightening the screw to its full extent. Do not exceed nor force tightening.

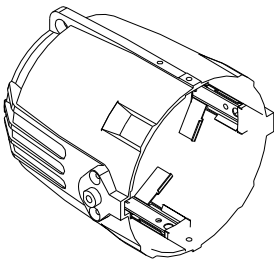


Fig.1

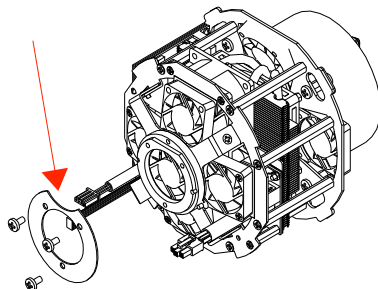


Fig.2

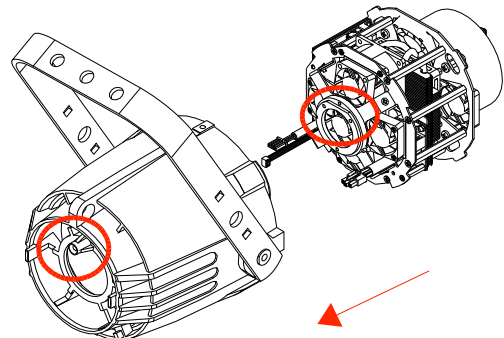


Fig.3

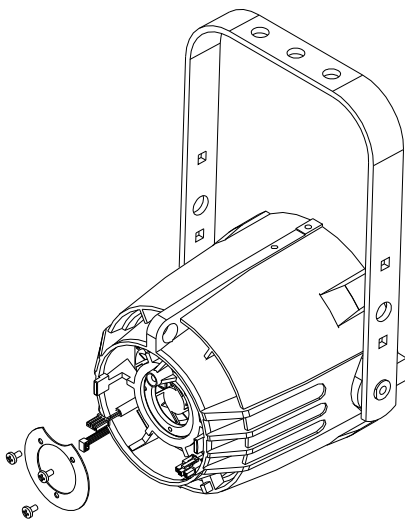


Fig.4

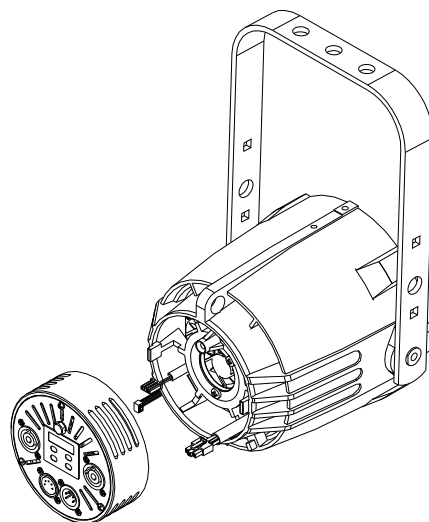


Fig.5

Connection to mains

WARNING ! Installation(s) must be accomplished, handled and carried out by qualified personnel only and must comply with all norms in force in the installation's country

HPLed is supplied with a free Blue Neutrik PowerCon plug that must be wired using a 3x1.5mm² lead which additional specifications include:

- Operating Voltage: 300/500V
- Test Voltage: 2KV
- Operating Temperature: -10°C / +90°C

Connect blue wire to N terminal, brown wire to L terminal and Yellow/Green wire to earth terminal. Ensure safety circuit breaker at all times. Daisy chain of up to 10 units when connected to 230VAC. Daisy chain of up to 5 units when connected to 110VAC. Maximum daisy chain length: 20m.

WARNING: HPLed CANNOT be powered by using an angle phase dimmer pack

Control signal connection

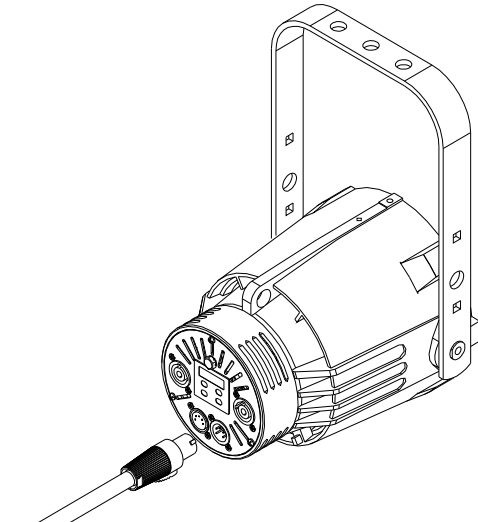


Fig.6

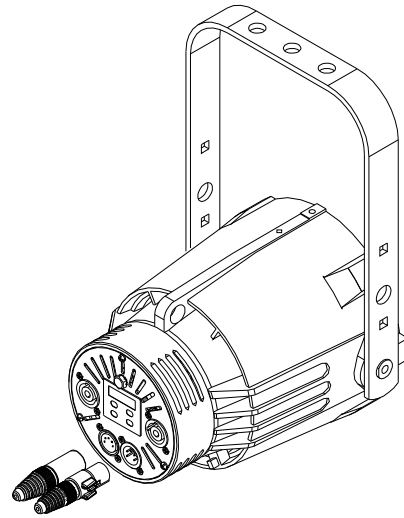


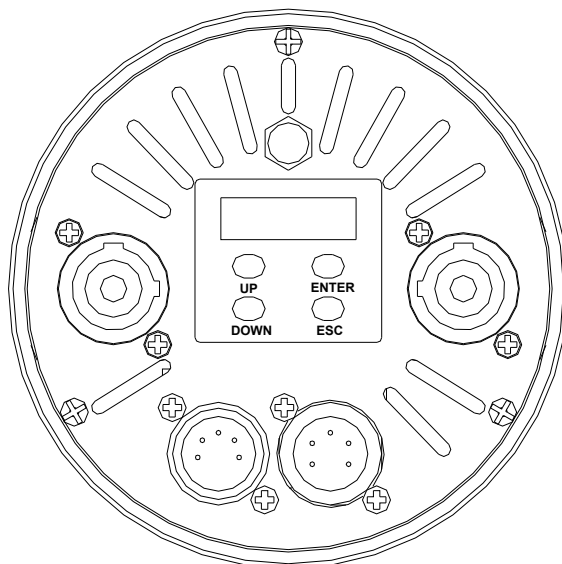
Fig.7

HPLed can be cooperated via either DMX512A and or RDM Protocols. Daisy chain DMX line using a-2 lead wire plus shield.

DMX XLR 5 Pin Assignment	
Pin	Description
1	GND
2	DMX-
3	DMX+
4	Not connected
5	Not connected

Reed led blinks when DMX Input available. DMX off line when led is off.

HPLed Power ON



WARNING ! Before powering HPLed ensure that all installation(s) procedure(s) have(s) been properly set and accomplished.

When HPLed is powered the setup display will show the software release version.

Using the 4 UP ,DOWN, ENTER and ESC buttons, will be possible to operate the HPLed menu. UP and DOWN buttons allows you to scan menu options, ENTER button to select and ESC button to back to previous menu option cancelling the modification applied to the selected one.

Menu items

Display Message	Allowed or displayed values	Function
Addr	001..510	SetUp DMX Address
Mode	2 ch 3ch 4ch 5ch	DMX Operating mode (see next page)
Man	0..255	Manual light output adjust (possible if no DMX is present). Adjusted value will be stored on the internal permanent memory
drUt	..°C	Shows driver operating temperature
LEdt	..°C	Show led operating temperature
PUM	0..100%	Shows current led power (0-100%)
GAMM	LI nE qUAd	Dimmer profile selection: - LI nE for linear dimming regulation - qUAd for tungsten lamp emulation
booS	Off on	Boost selection: off = maximum led power at 90% on = maximum led power at 100%
PoS	AA VV	Display orientation selection: AA = normal VV = inverted

StbY	Off on	Standby display activity: off = display always switched on on = display switched off after few seconds of buttons inactivity (only the right side dot will be lighted to indicate DMX availability)
dEF	Off on	ON Will restore the default factory values
TiML	..h ..	Shows LED life
TiMU	..h ..	Shows HPLed life
SoFt		Shows Software version

DMX Operating Modes (Mode)

HPLed provides different DMX operating modes ensuring the ideal use of the DMX universe

2ch Mode

Channel	Function	DMX Values	
1	shutter	0-9	off
		10..255	Strobe effect from slow to fast
2	dimmer	0..255	Light output: 0=Off, 255=Maximum Power

3ch Mode

Channel	Function	DMX Values	
1	shutter	0-9	off
		10..255	Strobe effect from slow to fast speed
2	dimmer	0..255	Light output: 0=Off, 255=Maximum Power
3	Fan speed	0..24	Fan at slowest speed
		24..255	Fan speed from slow to fast

4ch Mode

Channel	Function	DMX Values	
1	shutter	0..9	off
		10..255	Strobe effect from slow to fast speed
2	dimmer	0..255	Light output: 0=Off, 255=Maximum Power
3	Fan speed	0..24	Fan at slowest speed
		24..255	Fan speed from slow to fast
4	Frequency Modulation	0..24	PWM Frequency 1KHz
		25..49	PWM Frequency 2KHz
		50..74	PWM Frequency 3KHz
		75..99	PWM Frequency 4KHz
		100..124	PWM Frequency 5KHz
		125..149	PWM Frequency 6KHz
		150..174	PWM Frequency 7KHz
		175..199	PWM Frequency 8KHz
		200..224	PWM Frequency 9KHz
		225..255	PWM Frequency 10KHz

5ch Mode

Channel	Function	DMX Values	
1	shutter	0..9	off
		10..255	Strobe effect from slow to fast speed
2	Dimmer Coarse	0..255	Light output: 0=Off, 255=Maximum Power – Coarse
3	Dimmer Fine	0..255	Light output: 0=Off, 255=Maximum Power - Fine
4	Fan speed	0..24	Fan at slowest speed
		24..255	Fan speed from slow to fast
5	Frequency Modulation	0..24	PWM Frequency 1KHz
		25..49	PWM Frequency 2KHz
		50..74	PWM Frequency 3KHz
		75..99	PWM Frequency 4KHz

		100..124	PWM Frequency 5KHz
		125..149	PWM Frequency 6KHz
		150..174	PWM Frequency 7KHz
		175..199	PWM Frequency 8KHz
		200..224	PWM Frequency 9KHz
		225..255	PWM Frequency 10KHz

Error messages

In case of malfunction, the following messages can be shown:

- HP Fan Error: means problems on 40x40x10 fans
- LED Fan Error: means problems on 80x80x10 fan

Should any of the above given messages occur, the LED will automatically switch off. Refrain and halt the use of the HPLed and promptly contact any authorized service centre.

Periodic maintenance

To ensure the correct HPLed operation, we suggest the following periodic maintenance operations:

- Remove dust or any kind of other dirty from the fans and loop-holes to ensure the correct air flow
- Remove dust lenses using a cleaning cloth. This will ensure the maximum light efficiency
- Replace damaged protection screen and lenses when necessary

Do not touch nor clean the LED as wll the yellow area around it with solvent

Device disposal information

At the end of its life, HPLed must be disposed to an appropriate electrical and electronic equipment waste collection centre. Eco-friendly disposal, helps to avoid possible negative impact on the environment and human health and promotes the reuse and/or recycling of the materials making up the product. Illegal disposal involves administrative sanctions provided by laws enacted.



Manufacture declines any sort of personal/corporate responsibility/liability for damages caused by the inadequate/misuse of the product as well as if the product has been handled by unqualified personnel. Not complying with security norms/periodical maintenance as expressed in the owner's/service manual will also totally free personal/corporate responsibility/liability.

Preliminary. Any changes can be brought without notice.